**ELECTRONIC INFORMATION DISCLOSURE STATEMENT**

Electronic Version v18

Stylesheet Version v18.0

**Title of  
Invention****A VIRTUAL TRANSLATION LOOKASIDE BUFFER**

Application Number: 09/752133 \*09/752133\*

Confirmation Number: 8717

First Named Applicant: Gilbert Neiger

Attorney Docket Number: 042390.P9771

Art Unit: 2122

Examiner: Chameli Das

Search string: ( 3996449 or 4430709 or 4802084 or 4975836 or 5187802 or 5230069 or 5295251 or 5361375 or 5469557 or 5506975 or 5555385 or 5555414 or 5574936 or 5604805 or 5633929 or 5752046 or 5796835 or 5935247 or 5956408 or 5978475 or 6044478 or 6088262 or 6093213 or 6131166 or 6175924 or 6188257 or 6282650 or 6275933 or 20010027511 or 20020147916 or 20020166061 or 20020169717 or 20030074548 or 20030126453 or 20030159056 or 20030188179 ),pn.

**US Patent Documents****Note: Applicant is not required to submit a paper copy of cited US Patent Documents**

| init | Cite.No. | Patent No. | Date       | Patentee         | Kind | Class | Subclass |
|------|----------|------------|------------|------------------|------|-------|----------|
| C-D  | 1        | 3996449    | 1976-12-07 | Attanasio et al. |      |       |          |
| C-D  | 2        | 4430709    | 1984-02-07 | Schleupen et al. |      |       |          |
| CP   | 3        | 4802084    | 1989-01-31 | Ikegaya et al.   |      |       |          |
| CP   | 4        | 4975836    | 1990-12-04 | Hirosawa et al.  |      |       |          |
| CD   | 5        | 5187802    | 1993-02-16 | Inoue et al.     |      |       |          |
| CP   | 6        | 5230069    | 1993-02-16 | Brelsford et al. |      |       |          |
| CP   | 7        | 5295251    | 1994-03-15 | Wakui et al.     |      |       |          |
| CD   | 8        | 5361375    | 1994-11-01 | Ogi              |      |       |          |
| CP   | 9        | 5469557    | 1995-11-21 | Salt et al.      |      |       |          |
| CP   | 10       | 5506975    | 1996-04-09 | Onodera          |      |       |          |
| CD   | 11       | 5555385    | 1996-09-10 | Osisek           |      |       |          |

|    |    |         |            |                  |
|----|----|---------|------------|------------------|
| CD | 12 | 5555414 | 1996-09-10 | Hough et al.     |
| CD | 13 | 5574936 | 1996-11-12 | Ryba et al.      |
| CD | 14 | 5604805 | 1997-12-18 | Brands           |
| CD | 15 | 5633929 | 1997-05-27 | Kaliski          |
| CD | 16 | 5752046 | 1998-05-12 | Oprescu et al.   |
| CD | 17 | 5796835 | 1998-08-18 | Saada            |
| CD | 18 | 5935247 | 1999-08-10 | Pai et al.       |
| CD | 19 | 5956408 | 1999-09-21 | Arnold           |
| CD | 20 | 5978475 | 1999-11-02 | Schneider et al. |
| CD | 21 | 6044478 | 2000-03-28 | Green            |
| CD | 22 | 6088262 | 2000-07-11 | Nasu             |
| CD | 23 | 6093213 | 2000-07-25 | Favor et al.     |
| CD | 24 | 6131166 | 2000-10-10 | Wong-Isley       |
| CD | 25 | 6175924 | 2001-01-16 | Arnold           |
| CD | 26 | 6188257 | 2001-02-13 | Buer             |
| CD | 27 | 6282650 | 2001-08-28 | Davis            |
| CD | 28 | 6275933 | 2001-08-14 | Fine et al.      |

### US Published Applications

**Note:** Applicant is not required to submit a paper copy of cited US Published Applications

| init | Cite.No. | Pub. No.    | Date       | Applicant          | Kind | Class | Subclass |
|------|----------|-------------|------------|--------------------|------|-------|----------|
| CD   | 1        | 20010027511 | 2001-10-04 | Wakabayashi et al. |      |       |          |
| CD   | 2        | 20020147916 | 2002-10-10 | Strongin et al.    |      |       |          |
| CD   | 3        | 20020166061 | 2002-11-07 | Falik et al.       |      |       |          |
| CD   | 4        | 20020169717 | 2002-11-14 | Challener          |      |       |          |
| CD   | 5        | 20030074548 | 2003-04-17 | Cromer et al.      |      |       |          |
| CD   | 6        | 20030126453 | 2003-07-03 | Glew et al.        |      |       |          |
| CD   | 7        | 20030159056 | 2003-08-21 | Cromer et al.      |      |       |          |
| CD   | 8        | 20030188179 | 2003-10-02 | Challener et al.   |      |       |          |

### Signature

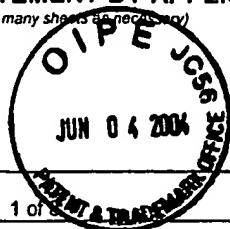
| Examiner Name  | Date     |
|----------------|----------|
| Charuli C. Don | 10/24/04 |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

|                      |                   |
|----------------------|-------------------|
| Application Number   | 09/752,133        |
| Filing Date          | December 27, 2000 |
| First Named Inventor | Neiger, Gilbert   |
| Group Art Unit       | 2122              |
| Examiner Name        | Das, Chameli      |

Sheet 1 of 8

Attorney Docket No: 042390.P9771

**US PATENT DOCUMENTS**

| Examiner Initial * | USP Document Number | Publication Date | Name of Patentee or Applicant of cited Document | Class | Subclass | Filing Date If Appropriate |
|--------------------|---------------------|------------------|---|-------|----------|----------------------------|
| CD                 | US-20010027511      | 10/04/2001       | Wakabayashi, Masaki, et al.                     |       |          | 03/14/2001                 |
| CD                 | US-20020147916      | 10/10/2002       | Strongin, Geoffrey S., et al.                   |       |          | 04/04/2001                 |
| CD                 | US-20020166061      | 11/07/2002       | Falik, Ohad, et al.                             |       |          | 05/07/2001                 |
| CD                 | US-20020169717      | 11/14/2002       | Challener, David C.                             |       |          | 05/09/2001                 |
| CD                 | US-20030074548      | 01/23/2003       | Tello, Jose                                     |       |          | 07/19/2001                 |
| CD                 | US-20030074548      | 04/17/2003       | Cromer, Daryl C., et al.                        |       |          | 10/16/2001                 |
| CD                 | US-20030126453      | 07/03/2003       | Glew, Andrew F., et al.                         |       |          | 12/31/2001                 |
| CD                 | US-20030159056      | 08/21/2003       | Cromer, Daryl C., et al.                        |       |          | 02/15/2002                 |
| CD                 | US-20030188179      | 10/02/2003       | Challener, David C., et al.                     |       |          | 03/28/2002                 |
| CD                 | US-3,996,449        | 12/07/1976       | Attanasio, Clement R., et al.                   |       |          | 08/25/1975                 |
| CD                 | US-4,430,709        | 02/07/1984       | Schleupen, Richard, et al.                      |       |          | 07/07/1981                 |
| CD                 | US-4,802,084        | 01/31/1989       | Ikegaya, Hiroshi, et al.                        |       |          | 02/10/1986                 |
| CD                 | US-4,975,836        | 12/04/1990       | Hirosawa, Toshio, et al.                        |       |          | 12/16/1985                 |
| CD                 | US-5,187,802        | 02/16/1993       | Inoue, Taro, et al.                             |       |          | 02/18/1989                 |
| CD                 | US-5,230,069        | 02/16/1993       | Brelsford, David P., et al.                     |       |          | 10/02/1990                 |
| CD                 | US-5,295,251        | 03/15/1994       | Wakui, Fujio, et al.                            |       |          | 09/21/1990                 |
| CD                 | US-5,361,375        | 11/01/1994       | Ogi, Yoshifumi                                  |       |          | 05/24/1993                 |
| CD                 | US-5,469,557        | 11/21/1995       | Salt, Tom, et al.                               |       |          | 03/05/1993                 |
| CD                 | US-5,506,975        | 04/09/1996       | Onodera, Osama                                  |       |          | 12/14/1998                 |
| CD                 | US-5,555,385        | 09/10/1996       | Osisek, Damian L.                               |       |          | 10/27/1993                 |
| CD                 | US-5,555,414        | 09/10/1996       | Hough, Roger E., et al.                         |       |          | 12/14/1994                 |
| CD                 | US-5,574,936        | 11/12/1996       | Ryba, Edward G., et al.                         |       |          | 01/25/1995                 |
| CD                 | US-5,604,805        | 02/18/1997       | Brands, Stefanus A.                             |       |          | 02/09/1996                 |
| CD                 | US-5,633,929        | 05/27/1997       | Kaliski, Jr., Burton S.                         |       |          | 09/15/1995                 |
| CD                 | US-5,752,046        | 05/12/1998       | Oprescu, Florin, et al.                         |       |          | 12/18/1996                 |

EXAMINER

Chameli C-Dm

DATE CONSIDERED

1/24/04

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional) \* Applicant is to place a check mark here if English language Translation is attached

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

|                      |                   |
|----------------------|-------------------|
| Application Number   | 09/752,133        |
| Filing Date          | December 27, 2000 |
| First Named Inventor | Neiger, Gilbert   |
| Group Art Unit       | 2122              |
| Examiner Name        | Das, Chameli      |

Sheet 2 of 2

Attorney Docket No: 042390.P9771

|    |              |            |                         |                                     |            |
|----|--------------|------------|-------------------------|-------------------------------------|------------|
| CD | US-5,796,835 | 08/18/1998 | Saada, Charles Serikawa | <input checked="" type="checkbox"/> | 05/07/1998 |
| CD | US-5,935,247 | 08/10/1999 | Pai, Hsiu-Ying, et al.  | <input checked="" type="checkbox"/> | 09/18/1997 |
| CD | US-5,956,408 | 09/21/1999 | Arnold, Todd W.         | <input checked="" type="checkbox"/> | 02/12/1998 |
| CD | US-5,978,475 | 11/02/1999 | Schneier, Bruce, et al. | <input checked="" type="checkbox"/> | 07/18/1997 |
| CD | US-6,044,478 | 03/28/2000 | Green, Daniel W.        | <input checked="" type="checkbox"/> | 05/30/1997 |
| CD | US-6,088,262 | 07/11/2000 | Nasu, Hiroaki           | <input checked="" type="checkbox"/> | 02/24/1998 |
| CD | US-6,093,213 | 07/25/2000 | Favor, John G., et al.  | <input checked="" type="checkbox"/> | 05/16/1996 |
| CD | US-6,131,166 | 10/10/2000 | Wong-Isley, Becky       | <input checked="" type="checkbox"/> | 02/24/1999 |
| CD | US-6,175,924 | 01/16/2001 | Arnold, Todd W.         | <input checked="" type="checkbox"/> | 06/20/1997 |
| CD | US-6,188,257 | 02/13/2001 | Buer, Mark L.           | <input checked="" type="checkbox"/> | 02/01/1999 |
| CD | US-6,275,933 | 08/14/2001 | Fine, Michael, et al.   | <input checked="" type="checkbox"/> | 04/30/1999 |
| CD | US-6,282,650 | 08/28/2001 | Davis, Derek L.         | <input checked="" type="checkbox"/> | 01/25/1999 |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Foreign Document No | Publication Date | Name of Patentee or Applicant of cited Document | Class                               | Subclass                            | T <sup>2</sup>                      |
|--------------------|---------------------|------------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| CD                 | EP-EP0473913        | 03/11/1992       | Farrell, Joel Alan                              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | EP-EP0961193        | 12/01/1999       | Laczko, Sr., Frank L.                           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | EP-EP0965902        | 12/22/1999       | Force, Gordon, et al.                           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | EP-EP1085396        | 03/21/2001       | Proudlar, Graeme J., et al.                     | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | EP-EP1271277        | 01/02/2003       | Behar, Yaachov                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO0021238        | 04/13/2000       | Drews, Paul C.                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO0163994        | 08/30/2001       | Van Sant, Glen, et al.                          | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO0201794        | 01/3/2002        | Ellison, Carl                                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO02060121       | 08/01/2002       | Grawrock, David W.                              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO9524696        | 09/14/1995       | Mooney, David M., et al.                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO99/65579       | 12/23/1999       | Bond, Eugene T.                                 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| CD                 | WO-WO9918511        | 04/15/1999       | Edrich, David R.                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

EXAMINER

Chameli C. Das

DATE CONSIDERED

10/24/04

Substitute Disclosure Statement Form (PTO-1449)

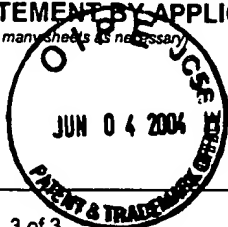
\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

|                      |                   |
|----------------------|-------------------|
| Application Number   | 09/752,133        |
| Filing Date          | December 27, 2000 |
| First Named Inventor | Neiger, Gilbert   |
| Group Art Unit       | 2122              |
| Examiner Name        | Das, Chameli      |

Sheet 3 of 3

Attorney Docket No: 042390.P9771

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item<br>(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s),<br>publisher, city and/or country where published. | T <sup>2</sup> |
|-----------------------|--------------------------|---|----------------|
| CD                    | —                        | COULOURIS, GEORGE, et al., "Distributed Systems, Concepts and Designs",<br>2nd Edition, (1994), 422-424   | —              |
| CD                    | —                        | INTEL CORPORATION, "IA-64 System Abstraction Layer Specification", Intel<br>Product Specification, Order Number 245359-001, (01/2000), 1-112  | —              |
| CD                    | —                        | INTEL CORPORATION, "Intel IA-64 Architecture Software Developer's<br>Manual", Volume 2: IA-64 System Architecture, Order Number 245318-001,<br>(01/2000), i, ii, 5.1-5.3, 11.1-11.8, 11.23-11.26  | —              |

EXAMINER

Chameli C Das

DATE CONSIDERED

10/24/04

Substitute Disclosure Statement Form (PTO-1449)

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional) <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached